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August 22, 1997

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Via Hand Delivery

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Washington, D.C. 20554

Re: Sullivan Broadcasting Company, Inc.'s Supplement to Petition for
Reconsideration in MM Docket 87-268

Dear Mr. Caton:

Transmitted herewith, on behalf of Sullivan Broadcasting Company, Inc., are the original and fourteen copies of its Supplement to Petition for Reconsideration filed in the above-referenced docket.

Please address any questions concerning this Supplement to Petition for Reconsideration to Robert J. Ungar of this firm, counsel for Sullivan Broadcasting Company, Inc. at (202) 775-4452.

Very truly yours,



Robin L. Miller*

Enclosures

*Bar admission pending

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

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AUG 22 1997

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
Advanced Television Systems) MM Docket 87-268
and Their Impact upon the)
Existing Television Broadcast Service)

To: The Commission

SUPPLEMENT TO PETITION FOR RECONSIDERATION

Submitted By:

Robert J. Ungar
Howard M. Liberman
ARTER & HADDEN
1801 K Street, N.W.
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Washington, D.C. 20006
(202) 775-7100

Its Attorneys

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
)	
Advanced Television Systems)	MM Docket 87-268
and Their Impact upon the)	
Existing Television Broadcast Service)	
To: The Commission		

SUPPLEMENT TO PETITION FOR RECONSIDERATION

Sullivan Broadcasting Company, Inc. ("Sullivan"), licensee of ten television broadcast stations, hereby files this supplement to its Petition for Reconsideration filed on June 13, 1997 in the above-referenced proceeding.¹ The task of developing a new table of allocations for the introduction of digital television has been difficult and the Commission is to be congratulated for its efforts. Sullivan believes, however, that it is time now, not later, to address the significant issues that continue to plague and, in some cases, doom the future participation of many UHF television stations in the new age of DTV.

¹ Sullivan is the licensee of WVAH-TV, Channel 11, Charleston, W. Va., WUHF-TV, Channel 31, Rochester, NY; WXLV-TV, Channel 45, Winston-Salem, NC; WZTV-TV, Channel 17, Nashville, TN; WRGT-TV, Channel 45, Dayton, OH; WRLH-TV, Channel 35, Richmond, VA; WFXV-TV, Channel 33, Utica, NY; WUTV-TV, Channel 29, Buffalo, NY; WTAT-TV, Channel 24, Charleston, SC; WMSN-TV, Channel 47, Madison, WI. On June 13, 1997, Sullivan and 12 other broadcasters filed a joint petition for reconsideration on the grounds set forth the petition for reconsideration filed the same day by Sinclair Broadcast Group, Inc. In its petition, Sinclair noted that OET Bulletin No. 69 had not been released and expressed the intention of filing supplemental comments at that time.

Sullivan takes this opportunity to address what it perceives as fundamental issues facing it and other UHF broadcasters. In addition, it submits engineering showings indicating how its stations may obtain relief from the stringent limitations announced in the Commission's DTV table of allocations.

In fashioning its DTV allocation table, the Commission has chosen to "replicate" the service area of existing NTSC stations. To the extent Sullivan acquiesced in this policy, we were wrong. Getting on with the business of introducing DTV suggested the political compromise of agreeing that stations would not use this significant moment to seek advantage. It was presumed, however, that stations certainly would not be placed at any further disadvantage. For many UHF stations this is just what has occurred. The result may be that, for some stations, the opportunity to participate in digital television will be sacrificed on the altar of replication.

We will not take the time here to recite what the Commission has already acknowledged to be the unfortunate disparity in permitted power between UHF and VHF DTV stations and the very real danger that UHF DTV stations will lack sufficient power to provide adequate service to their markets, particularly in the core service areas where the use of indoor antennas is common. The Commission has attempted to respond to the concerns of the UHF community.

We therefore will permit stations to request an increase in their operating power and/or antenna height increases up to the maximum permissible limits on DTV power and antenna height [permitted] or up to that needed to provide the same geographic coverage as the largest station within their market. Such requests must be accompanied by a technical showing that the increase would not result in new interference or statements agreeing to the change from any co-channel or adjacent channel stations that might be affected or statements agreeing to the change from any co-channel or adjacent channel stations that

might be affected.²

Sullivan believes that the Commission has created a framework within which the UHF disparity can be usefully addressed. It is necessary, however for this policy to be fine-tuned and made more realistic. The goal, of course, should be that all stations will have reasonable access to their core markets. In order to achieve this goal, Sullivan recommends the following steps be taken:

- The Commission should permit some level of *de minimis* interference from DTV stations seeking power and/or antenna height increases.
- The Commission should clearly indicate that the use of directional antennas to shape signals will be permitted in order to protect stations from harmful interference.
- All stations must be receivable within their Grade A contours by the use of in-door antennas.
- The Commission should convene an open meeting of broadcasters to resolve the UHF disparity issue.

The Commission should adopt a de minimis interference standard. As noted above, the Commission is willing to entertain requests for power and/or antenna height increases if no new interference is caused to co-channel or adjacent channel stations. It is, of course, highly unlikely that many stations will be able to satisfy such a stringent standard. Presumably the Commission's allocation methodology maximized power and height to as great an extent possible -- the Commission did a very good job. In some cases, the power and antenna height already chosen by the Commission will cause some degree of interference. Obviously, no power increase at all would be permitted in such instances. In order for the Commission's policy to be meaningful, a

² Sixth Report and Order in MM Docket No. 87-268, Para. 31, FCC 97-115, April 3, 1997.

certain amount of interference must be permitted. At issue are homes at the edge of a station's Grade B contour. Without minimizing the value of all viewers, it is clearly the case that core area -- Grade A contour -- viewers are most important for a station's advertising revenues. In addition, viewers in the far reaches of the Grade B contour are most likely to subscribe to a cable television system that will, in most cases, be required to carry the station's signal. Thus, if there must be interference, it can be most easily withstood at the edge of a station's coverage area.

Sullivan recommends that the Commission permit power and/or antenna height increases as long as no more than 5% of the homes of a co-channel or adjacent channel station receive interference. This is a reasonable *de minimis* standard.

The Commission should permit power increases using directional antennas.

Even though the Commission should adopt a *de minimis* standard recognizing the reality that some interference is likely as DTV power is increased, many stations will have difficulty attempting to replicate their NTSC service area. In many cases the answer may be to shape signals by using directional antennas, protecting a target station to as great an extent possible, while taking advantage of significant power increases in other directions. It is noted that the Commission did not prohibit directional antennas as a method of effectively increasing ERP, but neither did the Commission prescribe their use. As the accompanying technical exhibits show, Sullivan has found that in some cases signal shaping by means of directional antennas is a viable option. The Commission should make it clear that it believes that the use of directional antennas to protect other stations is a tool that will permit power increases for DTV stations.

Stations must have sufficient power to be receivable within their Grade A contours with indoor antennas.

As has been brought to the Commission's attention in the Sinclair Broadcasting Petition for Reconsideration to which Sullivan has subscribed, the planning factors to assure DTV replication of NTSC coverage are not realistic. The UHF receiver noise figure of just 7 dB presumes a highly sensitive receiver -- more sensitive than any in use today. Furthermore, the antenna gain factor employed by the Commission presumes the use of outside, rooftop antennas. In fact, of course, in the more densely populated parts of a station's service area there are many viewers who either do not have access to, or cannot afford the use of an outside, rooftop antenna. Instead, as perusal of the shelves of any Radio Shack will show, they depend on indoor "rabbit ears" or loop antennas. This is particularly the case for second or third receivers in apartment buildings with limited or no access to master antenna jacks or cable outlets. A signal from a DTV station assigned a mere 50 kW of power may not be receivable by indoor antennas in dwellings located in a UHF station's Grade A service area in an environment of brick and plaster. Moreover, with the convergence of personal computers and television receivers it is even more likely that the use of small indoor antennas will be required. Sullivan joins with others who have urged the Commission to ensure that DTV signals are sufficiently robust to replicate NTSC service within their Grade A contours.

The Commission should convene an open meeting on UHF-VHF power disparity.

The Commission, as well as the various segments of the broadcast industry, is engaged in a dispute that is both technical and, obviously, political. No station wants to concede viewers to additional interference on behalf of another station. No station wants to be at a competitive

disadvantage with other stations in its market. Thus, the Commission must act as a mediator in this most difficult dispute to assure that all stations are treated fairly. It may be that being treated fairly does not include continued access to a service area quite as large as before. Being treated fairly may mean having to accept compromise in order to assure the health of the industry as a whole.

Sullivan urges the Commission to make it clear to the industry that it intends to walk the last mile in the most public of fashions. We believe the Commission should convene an open conference over a period of several days with panels representing members of the VHF and UHF communities. The Commission should announce its intent to use the opportunity to force a compromise that will level the playing field for all participants. If the result of such a conference is a plan requiring public comment, then so be it. Another month or two is hardly of moment if the result is that the public can enjoy a competitive digital television service.

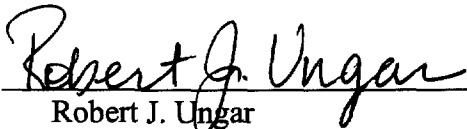

Technical Exhibits and Conclusion.

Attached as exhibits are engineering studies of the Sullivan television broadcast stations. As these exhibits make clear, it is possible for some stations to increase DTV power by varying amounts causing little or no additional interference. Therefore, based on OET Bulletin 69, these exhibits constitute the showings envisioned by the Commission for stations attempting to raise power and/or antenna height to achieve a more robust DTV signal. In some cases it will be necessary to use directional antennas to permit the necessary power increases. Sullivan hereby requests that the Commission act favorably on these showings in a time frame that will enable the formulation of a business plan appropriate to each station. It is not clear what process the Commission will use to analyze these requests and the hundreds of similar requests that are

bound to be received in this proceeding. Clearly, a method must be found to consider each request in light of some number of other requests. Accordingly, in some cases, in an attempt to provide the Commission with as much flexibility as possible, Sullivan has provided alternative plans. It may be that additional information will be required and Sullivan stands ready to provide it. We ask that the Commission grant Sullivan's requests and provide the industry with the much needed certainty that every station, large and small, VHF and UHF, will have a fair opportunity to provide its existing viewers with a competitive digital television service.

Respectfully submitted,

SULLIVAN BROADCASTING COMPANY, INC.

By:  
Robert J. Ungar
Howard M. Liberman
ARTER & HADDEN
1801 K Street, N.W.
Suite 400-K
Washington, D.C. 20006
(202) 775-7100

Its Attorneys

August 22, 1997

99478

Sullivan Broadcasting Company, Inc.
Supplement to Petition for Reconsideration
MM Docket 87-268
August 22, 1997

EXHIBIT 1

**ENGINEERING STATEMENT
WTAT-TV, CHARLESTON, SOUTH CAROLINA**

AUGUST 1997

**COHEN, DIPPELL AND EVERIST, P.C.
CONSULTING ENGINEERS
RADIO AND TELEVISION
WASHINGTON, D.C.**

COHEN, DIPPELL AND EVERIST, P. C.

City of Washington)
) ss
District of Columbia)

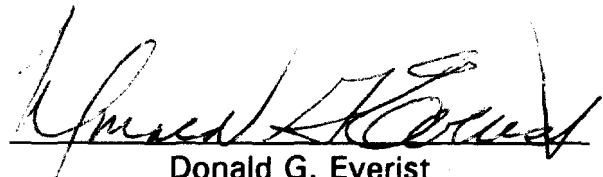
Donald G. Everist, being duly sworn upon his oath, deposes and states that:

He is a graduate electrical engineer, a Registered Professional Engineer in the District of Columbia, and is President of Cohen, Dippell and Everist, P.C., Consulting Engineers, Radio - Television, with offices at 1300 L Street, N.W., Suite 1100, Washington, D.C. 20005;

That his qualifications are a matter of record in the Federal Communications Commission;


That the attached engineering report was prepared by him or under his supervision and direction and

That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.



Donald G. Everist
District of Columbia
Professional Engineer
Registration No. 5714

Subscribed and sworn to before me this 22nd day of August, 1997.


Notary Public

My Commission Expires: _____

SUE T. KILGORE
NOTARY PUBLIC DISTRICT OF COLUMBIA
My Commission Expires December 14, 2001

COHEN, DIPPELL AND EVERIST, P. C.

WTAT-TV, CHARLESTON, SOUTH CAROLINA

This engineering statement has been prepared on behalf of Sullivan Broadcasting License Corp., licensee of TV broadcast station WTAT-TV, Charleston, South Carolina.

	<u>Allotment</u>	
	<u>NTSC</u>	<u>DTV</u>
Channel	24	40
ERP	5000 kW Max. DA	315.1 kW Max. DA
HAAT	542 M	542 M

Based on Section 73.622(a)(6) of the new rules, WTAT-TV may increase to an ERP of at least 403 kW based on its licensed HAAT of 542 meters.

Studies have been made on two co-channel NTSC stations WKFT(TV) Channel 40, Fayetteville, North Carolina and WFBC-TV, Channel 40, Anderson, South Carolina, and one fourth-adjacent WMMP(TV), Channel 36, Charleston, South Carolina, to determine the increase of interference to these stations from a 403 kW Max. DA operations for WTAT-TV.

These studies based on the TA Services CSPM program with WTAT-TV using the directional pattern as set forth in the Sixth Report & Order, an ERP of 403 kW Max. DA. The tabulation shown below are the unclipped populations of WFBC-TV, WKFT(TV), WMMP(TV) served, and the interference from WTAT-TV at 403 kW.

COHEN, DIPPELL AND EVERIST, P. C.

WTAT-TV, CHARLESTON, SOUTH CAROLINA

<u>Call</u>	<u>Channel</u>	<u>City/State</u>	<u>NTSC Service</u>		<u>Area</u> sq.km
			<u>Population</u>	<u>Households</u>	
WKFT(TV)	40	Fayetteville, NC	2,331,000	879,000	33,390
Interference from WTAT-TV 403 kW			16,000	6,000	460
Percent of WKFT(TV) Service Area			0.7	0.7	1.4
WFBC-TV	40	Anderson, SC	1,031,000	38,900	15,760
Interference from WTAT-TV 403 kW			2,000	1,000	170
Percent of WFBC-TV Service Area			0.2	0.3	1.1
WMMP(TV)	36	Charleston, SC	--	--	--
Interference from WTAT-TV					40
Percent of Service Area					

The FCC has reduced the WTAT-TV licensed directional pattern as much as 3.4 dB in certain directions and it is believed that the DTV directional antenna pattern will not be able to replicate the licensed service area, thus, an ERP increase to 403 kW is requested.

Sullivan Broadcasting Company, Inc.
Supplement to Petition for Reconsideration
MM Docket 87-268
August 22, 1997

EXHIBIT 2

**ENGINEERING STATEMENT
WXLV(TV), WINSTON-SALEM, NORTH CAROLINA**

AUGUST 1997

**COHEN, DIPPELL AND EVERIST, P.C.
CONSULTING ENGINEERS
RADIO AND TELEVISION
WASHINGTON, D.C.**

COHEN, DIPPELL AND EVERIST, P. C.

City of Washington)
) ss
District of Columbia)

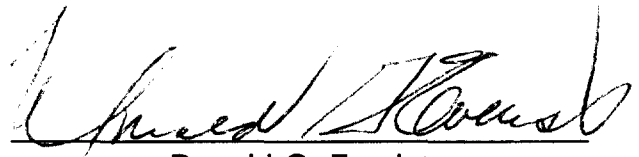
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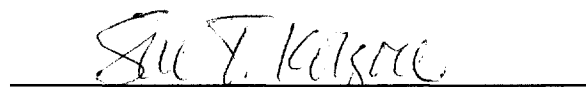
That his qualifications are a matter of record in the Federal Communications Commission;

That the attached engineering report was prepared by him or under his supervision and direction and

That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.


Donald G. Everist
District of Columbia
Professional Engineer
Registration No. 5714

Subscribed and sworn to before me this 22nd day of August, 1997.


Notary Public

My Commission Expires: _____
SUE T. KILGORE
NOTARY PUBLIC DISTRICT OF COLUMBIA
My Commission Expires December 14, 2001

This engineering statement has been prepared on behalf of Sullivan Broadcasting License Company, Inc., licensee of TV broadcast station WXLV-TV, Winston-Salem, North Carolina.

	<u>Allotment</u>	
	<u>NTSC</u>	<u>DTV</u>
Channel	45	29
ERP	5000 Max. DA	143.2 kW
HAAT	597 M	597 M

WXLV(TV) is licensed for Channel 45, 5000 kW DA Max. and 597 meters. For the DTV Channel 29 operation, the FCC has used the NTSC construction permit as a basis to replicate the WXLV-TV coverage.

Based on Section 73.622(a)(6) of the new rules, WXLV-TV is permitted to have an ERP of 316 kW based on its licensed HAAT of 597 meters.

Studies have been made on two co-channel NTSC stations WNTV(TV) Channel 29 and WVIR(TV) Channel 29 and one first-adjacent DTV station WSLS-TV, Channel 30 to determine the increase of interference to these stations from a 316 kW operation for WXLV-TV.

The studies based on the TA Services, CSPM program with WXLV-TV using an ERP of 316 kW show the unclipped populations served and the interference from WXLV-TV.

COHEN, DIPPELL AND EVERIST, P. C.

WXLV-TV, WINSTON-SALEM, NORTH CAROLINA

PAGE 2

<u>Call</u>	<u>Channel</u>	<u>City/State</u>	<u>NTSC Service</u>		<u>Area sq.km</u>
			<u>Population</u>	<u>Households</u>	
WNTV(TV)	29	Greenville, SC	1,180,000	444,000	18,810
Interference from WXLV-TV			22,000	8,000	720
Percent of WNTV(TV) Service Area			1.9	1.8	3.8
WVIR-TV	29	Charlottesville, VA	582,000	209,000	18,660
Interference from WXLV-TV			1,000	0	100
Percent of WNTV(TV) Service Area			0.2	0	0.5
			<u>DTV Service</u>		
DWSLS-TV	30	Roanoke, VA	1,131,000	435,000	33,150
Interference from WXLV-TV			14,000	5,000	350
Percent of WNTV(TV) Service Area			1.2	1.1	1.1

Due to the highly urban character of the Winston-Salem, Greensboro and High Point, North Carolina, Tri-City area it is believed that the higher ERP of 316 kW is required to replicate the licensed coverage area of WXLV-TV.

Sullivan Broadcasting Company, Inc.
Supplement to Petition for Reconsideration
MM Docket 87-268
August 22, 1997

EXHIBIT 3

**ENGINEERING STATEMENT
WMSN-TV, MADISON, WISCONSIN**

AUGUST 1997

**COHEN, DIPPELL AND EVERIST, P.C.
CONSULTING ENGINEERS
RADIO AND TELEVISION
WASHINGTON, D.C.**

COHEN, DIPPELL AND EVERIST, P. C.

City of Washington)
) ss
District of Columbia)

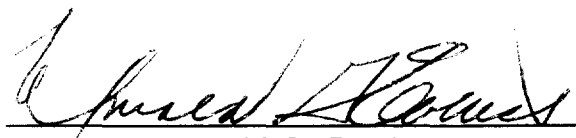
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That the attached engineering report was prepared by him or under his supervision and direction and

That the facts stated herein are true of his own knowledge, except such facts as are stated to be on information and belief, and as to such facts he believes them to be true.


Donald G. Everist
District of Columbia
Professional Engineer
Registration No. 5714

Subscribed and sworn to before me this 22nd day of August, 1997.


Notary Public

My Commission Expires: SUE T. KILGORE
NOTARY PUBLIC DISTRICT OF COLUMBIA
My Commission Expires December 14, 2001

This engineering statement has been prepared on behalf of Sullivan Broadcasting License Corp., licensee of WMSN-TV, Madison, Wisconsin.

Allotment

	<u>NTSC</u>	<u>DTV</u>
Channel	47	11
ERP	1150 kW	3.2 kW
HAAT	450 M	450 M

Based on Section 73.622(a)(5) of the new rules, WMSN-TV may increase to an ERP of at least 8.2 kW based on its licensed HAAT of 450 meters.

WMSN-TV has an application (BPCT-960705KH) on file to increase its power to 5000 kW and increase its HAAT to 451 meters.

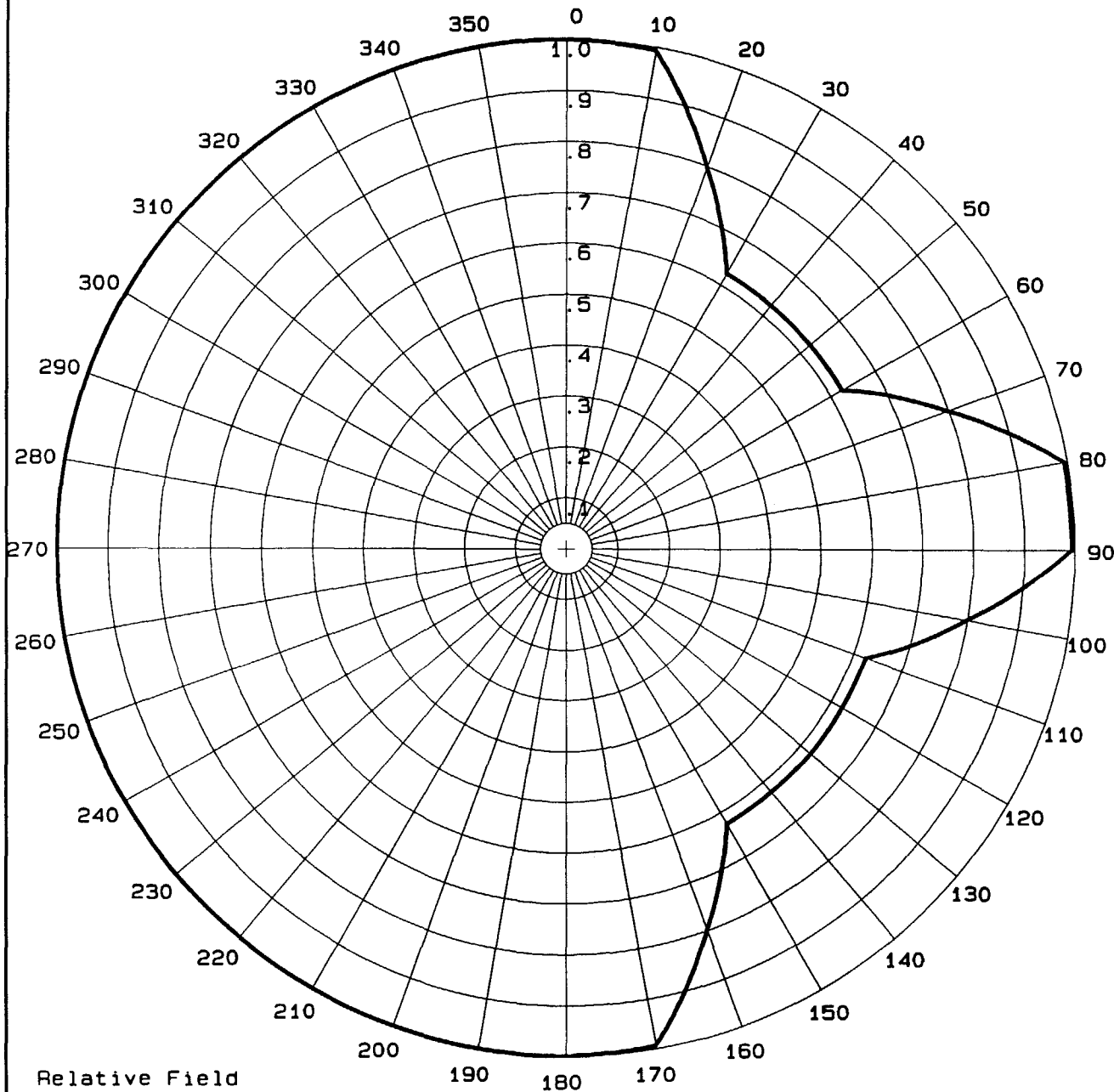
It is anticipated that future terrestrial broadcasting will need to be complete in a multimedia environment. This will dictate the need to have a sufficient DTV signal to permit reception to second and third sets in the home that are not connected to a master antenna or cable.

Our office has analyzed the WMSN-TV DTV service contour and based on our experience it is our opinion that in certain areas it is unlikely that sufficient signal will be received by indoor loop antennas. This is particularly the case in urban areas with large buildings causing excessive attenuation and multipath. Thus with allocated ERP of 3.2 kW, it is unlikely that the WMSN-TV DTV signal will in fact replicate its licensed NTSC service much less the service area proposed in its application.

The nearest co-channel NTSC stations are WTTW(TV), Chicago, Illinois, with an ERP of 60.3 kW at 497 meters HAAT and WLUK-TV, Green Bay, Wisconsin, with an ERP of 316 kW at 384 meters HAAT. The spacing between WMSN-TV DTV Channel 11 and the WTTW(TV) NTSC Channel 11 is 203.7 km. Section 73.623 of the new rules requires a separation of 244.6 km. The spacing between WMSN-TV DTV Channel 11 and WLUK-TV NTSC Channel 11 is 195.1 km. Section 73.623 of the new rules requires a separation of 244.6 km.

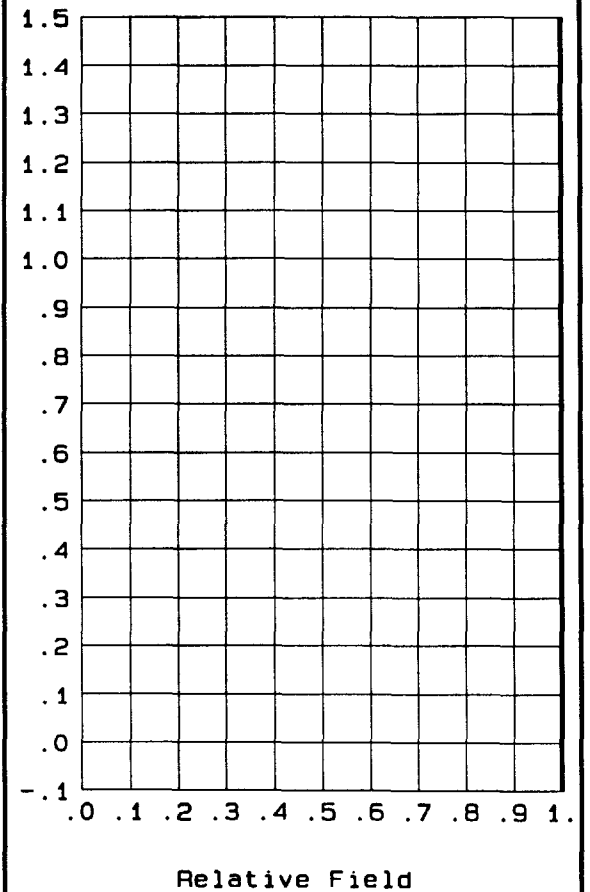
Attached hereto as Figure 1 is an assumed directional pattern for the Channel 11 DTV operation of WMSN-TV for a maximum ERP of 8.2 kW. It is believed that this pattern will provide more than adequate protection to WTTW(TV) and WLUK-TV while attempting to replicate the NTSC service proposed in the WMSN-TV application.

HORIZONTAL PLANE PATTERN



VERTICAL PLANE PATTERN

Azimuth: .0



Pattern file: wmsn11.pat

FIGURE 1

COHEN, DIPPELL AND EVERIST, P.C.
CONSULTING ENGINEERS WASHINGTON, D.C.